trolled trials (RCTs) evaluating Dabigatran for the treatment of AF. We included studies that were: (1) a RCT in humans; (2) an investigation of patients with nonvalvular atrial fibrillation; (3) an evaluation of dabigatran compared with warfarin or each other; and (4) a report of results of stroke or systemic emboli and major bleeding. A systematic literature search for dabigatran trials was undertaken for the databases Pubmed, Embase, Biosis, Google Scholar, and Cochrane. Data was collected for the study size, interventions, year and total bleeding events. For meta-analysis, random effects and fixed effects models were used to obtain cumulative statistics. **RESULTS:** Two RCTs with a total of 12,268 patients were identified. The pooled event rate for Dabigatran for total bleeding events was 31.9% (95% CI 31%-33%). The pooled response rate for Warfarin for total bleeding events was 35.1% (95% CI 34%-37%). The cumulative relative risk for total bleeding events with Dabigatran versus Warfarin was 0.91 (95% CI 0.89-0.93). **CONCLUSIONS:** Meta-analysis shows Dabigatran has a slightly lower rate of total bleeding events compared to Warfarin.

PCV23

COST AND OUTCOMES OF ANTIHYPERTENSIVE TREATMENTS IN ASIAN INDIAN PATIENTS

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OBJECTIVES: The objective of the study was to determine costs and clinical outcomes of antihypertensive treatment patients taking amlodipine or telmisartan. **METHODS:** This year long prospective observational study was carried out at cardiology OPD of a private tertiary health care hospital. The patients over 20 years of age, either sex, with clinically diagnosed hypertension (JNC VII) receiving either telmisartan (40 & 80 mg OD) or amlodipine (5 mg OD or BD) were followed for a period of at least 8 weeks after baseline assessment. An attempt made to understand the direct costs involved. The primary outcome measured was difference in SBP and DBP after 8 weeks of treatment vs. baseline BP. Only the direct costs were included. **RESULTS:** Of 250 patients studied, 120 belonged to the amlodipine and 130 to the telmisartan group. 150 had a family history of hypertension. The average systolic and diastolic BP was 153.90±15.7 and 93.36±7.1 mmHg, respectively. Age, weight, height, BMI, Baseline SBP and DBP and duration of hypertension did not differ in between amlodipine and telmisartan group. The prevalence of CAD was more in male patients; and, the prevalence of diabetes was more in female patients. The average reduction in SBP was amlodipine and telmisartan group was 17.92±10.2mmHg and 18.48±13.6 mmHg. The average DBP reduction found in amlodipine and telmisartan group were 9.45±7.3 and 10.3±6.9 mmHg. However, at the end of the minimal follow up period, there was no statistically significant difference found in reduction of DBP. BP control was significantly different in diabetic and non-diabetic patients. The average cost of drugs per mmHg reduction of BP was INR973 and INR812 in amlodipine and telmisartan arms, respectively, in non-diabetic hypertensive patients on monotherapy. **CONCLUSIONS:** Despite its limitations, the results offer indicative evidence using the real-time Asian Indian patients.

PCV25

EVALUATION OF ADHERENCE TO TREATMENT GUIDELINES AND RE-HOSPITALIZATION IN PATIENTS WITH CHRONIC HEART FAILURE: THAILAND

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OBJECTIVES: Current guidelines recommend a combination of ACEIs/ARBs, beta-blockers and aldosterone antagonists for the treatment of chronic heart disease; however, previous studies have found minimal use of these medications. This study aimed to evaluate the physicians' adherence to treatment guidelines and to explore the association between adherence to guidelines and re-hospitalization in patients with chronic heart failure in Thailand. **METHODS:** This retrospective cohort study collected data from systolic heart failure patients who received treatment from a tertiary university-affiliated hospital between January 2008 and December 2010 and were followed-up for 2 years. The evaluation of the physicians' adherence to treatment guidelines in prescribing ACEIs/ARBs, beta-blockers and aldosterone antagonists (primary endpoint) were conducted by using a Guideline Adherence Indicator (GAI-3; classified as low, medium and high) according to the recommendation of guidelines. The secondary endpoint was re-hospitalization for CHF during the follow-up period. **RESULTS:** Of 155 patients, more patients were prescribed beta-blockers (65.8%) than ACEIs/ARBs (50.7%) and aldosterone antagonists (20.0%). Twenty-five, 47 and 28 percent of patients were classified as low, medium and high GAI-3, respectively. The rate of re-hospitalization was lower in patients with a high GAI-3 score compared to patients with a medium or low GAI-3 score (79.1 vs. 90.4 vs. 94.9, per 100 person-years, respectively). Multivariable Cox regression analysis (adjusted by sex, age, NYHA Functional Class and comorbidity) found that patients with high and medium GAI-3 scores had a lower risk of re-hospitalization compared with low GAI-3 score (high GAI-3 score:adjusted HR 0.184, 95%CI:0.093-0.367,p<0.001; medium GAI-3 score: adjusted HR 0.436, 95%CI:0.238-0.797,p=0.007). **CONCLUSIONS:** Physicians' adherence to treatment guidelines for systolic heart failure was not optimal. Some patients did not receive medications following the guidelines' recommendation. Our results suggested that using medications following treatment guidelines was an important factor to reduce the risk of re-hospitalization from heart failure.

PCV26

THE USE OF PILLBOX AND TIME IN THERAPEUTIC RANGE AMONG NEW USERS OF WARFARIN: A PROPECTIVE COHORT STUDY

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OBJECTIVES: Warfarin, a widely prescribed oral anticoagulant, is well known to have a narrow therapeutic index. Many studies confirmed that adherence helps to achieve a stabilization of the INR, but little data is available on the impact of the use of a pillbox. The objective of this study is to evaluate the association between the use of a pillbox among new warfarin-users and time in therapeutic range (TTR). **METHODS:** This study was based on a prospective cohort of new warfarin-users which aims to assess the genetic, clinical and environmental risk factors associated with the effectiveness and safety of warfarin. Demographic and clinical data were collected among a subgroup of 702 patients who began the treatment between May 1st, 2010 and Aug. 31st, 2012 at one of 18 hospitals in Quebec, Canada. Patients were followed-up each three months up to a year after the initiation of warfarin. Our outcome was the TTR and it was tested using a mixed linear model to allow for repeated measures. **RESULTS:** Mean age was 70.0 ± 11.6, 60.1% were men, 79% had atrial fibrillation as a primary indication for warfarin, 67.9% had hypertension and 61.1% had dyslipidemia. Of these patients, 47.2%, 53.1%, 56.1% and 60.4% used a pillbox at 3, 6, 9 and 12 months, respectively. Patients who used their own pillbox (approximately 75% of pillbox users) had a higher TTR than non-users (3.7%, p=0.03). These results were adjusted for the INR target, age, number of concomitant drugs and patient-reported dose of warfarin as these covariates were significantly associated with the outcome. **CONCLUSIONS:** There is a significant association between the use of a pillbox prepared by the patient and a higher TTR. The use of this device may improve the stability of patients taking warfarin, but the clinical significance of this finding is arguable.

PCV27

USE OF DIURETICS IN SERBIA FROM 2008 TO 2012

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OBJECTIVES: Diuretics are drugs of first choice in the treatment of hypertension. The aim of this study was to analyze the consumption of diuretics in Serbia in the period from 2008 to 2012 year. **METHODS:** The data about the use of drugs were taken from the Agency for Drugs and Medical Devices of the Serbia. **RESULTS:** The use of diuretics during the observed period in Serbia is quite small and it ranged from 5 to 6% of the total consumption of all drugs from the C group. Furosemide was the most frequently used diuretic from 2008-2010. In the observed period consumption of furosemide ranged about 61 % of the total consumption of all diuretics. On the second place in consupmtion during first three years of the study was indapamide. Indapamid records decline in consumption in next two years. In 2011. and 2012. hydrochlorothiazide takes second place in consumption and marks a possitive trend. In 2012. it ranged 7.92 DDD/1000 inh/day. Spironolactone takes the fourth position in the first three years. During the 2011. and 2012. consumption of spironolactone has increased and took the third position in consumption. Consumption of all other diuretics was small. **CONCLUSIONS:** In Serbia, in the observed period, consumption of diuterics were uneven. It is two to three times lower in comparison with the consumption of diuretics in Norway and Finland. This research was supported by Provincial Secretariat for Science and Technological Development, Autonomous Province of Vojvodina project No 114-451-2458/2011 and by Ministry of Science, Republic of Serbia, project no 41012.

PCV28

BURDEN OF MAJOR ADVERSE CARDIAC EVENTS (MACE) IN PATIENTS WITH CORONARY ARTERY DISEASE (CAD) OR PERIPHERAL ARTERIAL DISEASE (PAD)

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OBJECTIVES: Patients with a history of a cardiovascular (CV) disease are at high risk of developing secondary major adverse cardiac events (MACE), including death, non-fatal myocardial infarction (MI), stroke, symptomatic pulmonary embolism, CV and all-cause hospitalization, and bleeding. The objective is to review the epidemiology and burden of MACE in patients with coronary artery disease (CAD) or peripheral arterial disease (PAD) in Europe, Asia, Latin America and Canada. **METHODS:** A comprehensive search was conducted in PubMed, EMBASE, Cochrane and other relevant sites. 460 full-text articles, published between 2003 and 2013, were reviewed. **RESULTS:** MACE was more prevalent in CAD/PAD patients compared to matched controls (> 2-fold higher). Proportions of CAD patients who have had MI, stroke, or bleeding were 1.4%–3.0%, 1.24% and 0.81%, respectively. For PAD patients, these proportions were 1.37%–13.7%, 0.4%–5.2%, and 1.3%, respectively. Compared to individuals with no CV disease, MACE incidence in CAD or PAD patients was increased by at least two-fold, ranging from 18.1%–32.3% for all-cause death, 12.1%–18.9% for CV death, 8.2%–17.3% for MI and 6.8%–11.3% for stroke. In patients with CAD, evidence of MACE was reported within 30 days of primary percutaneous coronary intervention and incidence increased over time. The main risk factors for MACE in CAD/PAD patients included increased oxidative stress in coronary and peripheral arteries, diabetes, and chronic kidney disease. Limited information was found on the economic and humanistic burden of MACE in CAD/PAD patients. Available data showed that MACE occurrence increased hospitalization rates and associated costs, in addition to worsening patients' quality of life. **CONCLUSIONS:** Although gaps in the literature were identified, this assessment showed that the risk of MACE is substantial among CAD/PAD patients and imposes a considerable burden. Development of preventive measures is warranted.

PCV29

RATES OF ACUTE CORONARY EVENTS AND ALL CAUSE MORTALITY IN PATIENTS WITH STABLE CORONARY ARTERY DISEASE (CAD) AFTER MYOCARDIAL INFARCTION AND ADDITIONAL CARDIOVASCULAR RISK FACTORS

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